

Dialog DataStar

options

logout

feedback

help

databases

search  
page

titles

## Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

save

locally as:

PDF document



include search strategy

previous  
documentnext  
document

order

Fulltext-Link:

document 2 of 5 [Order Document](#)

INSPEC - 1969 to date (INZZ)

**Accession number & update**

6423449, B2000-01-4150D-015; 19991201.

**Title**Enhanced dynamic response of the in-plane **switching liquid crystal** display mode through polymer stabilization.**Author(s)**[Escuti-M-J](#); [Bowley-C-C](#); [Crawford-G-P](#); [Zumer-S](#).**Author affiliation**

Dept of Phys, Brown Univ, Providence, RI, USA.

**Source**

Applied-Physics-Letters (USA), vol.75, no.21, p.3264-6, 22 Nov. 1999. , Published: AIP.

**CODEN**

APPLAB.

**ISSN**

ISSN: 0003-6951, CCCC: 0003-6951/99/75(21)/3264(3)/ (\$15.00).

**Availability**

SICI: 0003-6951(19991122)75:21L.3264:EDRP; 1-J

Electronic Journal Document Number: S0003-6951(99)02847-8.

**Publication year**

1999.

**Language**

EN.

**Publication type**

J Journal Paper.

**Treatment codes**

X Experimental.

**Abstract**

A significant improvement in the dynamic response time of the in-plane **switching nematic liquid crystal** mode, useful in flat-panel display applications, is achieved through polymer stabilization. This improvement is achieved by introducing a low-density, stabilizing polymer network that causes the nematic director to favor the zero-field orientation at the expense of transmission and slightly higher drive voltages. We present a simple model that treats the polymer network as an effective field in the general framework of elastic continuum theory. (16 refs).

**Descriptors**

flat-panel-displays; liquid-crystal-displays; nematic-liquid-crystals; polymer-dispersed-liquid-crystals.

**Keywords**

enhanced dynamic response; **inplane switching liquid crystal** display mode; polymer stabilization; dynamic response time; nematic **liquid crystal** mode; flat panel display; low density stabilizing polymer network; nematic director; zero field orientation; elastic continuum theory; NLC.

**Classification codes**

B4150D (**Liquid crystal** devices).

B7260B (Display materials).

**Copyright statement**

Copyright 1999, IEE.

COPYRIGHT BY Inst. of Electrical Engineers, Stevenage, UK

save

locally as:

PDF document



☐ include search strategy

previous  
document

next  
document

order

Top - News & FAQs - Dialog

© 2003 Dialog

# Dialog DataStar.

[options](#)[logoff](#)[feedback](#)[help](#)[databases](#)[search  
page](#)[titles](#)

## Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

[save](#)

locally as:

PDF document



include search strategy

[previous  
document](#)[next  
document](#)[order](#)☐ document 3 of 5 [Order Document](#)

### INSPEC - 1969 to date (INZZ)

#### Accession number & update

6244772, B1999-06-7260D-041; 19990501.

#### Title

Optically compensated **in-plane-switching-mode** TFT-LCD panel.

#### Author(s)

Saitoh-Y; Kimura-S; Kusafuka-K; Shimizu-H.

#### Author affiliation

IBM Display Bus Unit, Kanagawa, Japan.

#### Source

Proceedings of SID'98. International Symposium, Anaheim, CA, USA, 17-22 May 1998.  
In: p.706-9, 1998.

#### ISSN

CCCC: 0098-0966X/98/2901-0706- (\$1.00+.00).

#### Publication year

1998.

#### Language

EN.

#### Publication type

CPP Conference Paper.

#### Treatment codes

P Practical.

#### Abstract

An optically compensated **in-plane-switching-mode** TFT-LCD panel was developed. The panel has an optical compensation film between a **liquid crystal** layer and a polarizer, and shows a significantly high-contrast viewing angle, good gray-scale capability, small color shift, and a large tolerance for cell gap non-uniformity compared with a conventional **inplane-switching-mode** LCD. (13 refs).

#### Descriptors

[compensation](#); [liquid-crystal-displays](#); [optical-films](#); [thin-film-transistors](#).

#### Keywords

TFT LCD panel; optical compensation film; polarizer; high contrast viewing angle; gray scale capability; color shift; cell gap non uniformity; in plane **switching** mode LCD.

#### Classification codes

B7260D (Display characteristics).  
B2560R (Insulated gate field effect transistors).  
B4150D (**Liquid crystal** devices).

B4190F (Optical coatings and filters).

**Copyright statement**

Copyright 1999, IEE.

COPYRIGHT BY Inst. of Electrical Engineers, Stevenage, UK

locally as:  ☐ include search strategy

Top - News & FAQs - Dialog

© 2003 Dialog

# Dialing DataStar

[options](#)[logout](#)[feedback](#)[help](#)[databases](#)[search  
page](#)

## Titles

To view one or many selected titles scroll down the list and click the corresponding boxes. Then click display at the bottom of view one particular document click the link above the title to display immediately.

[order](#)

Documents 1 to 5 of 5 from your search **Liquid AND crystal AND inplane AND switching**:

☐ **Select All**☐ 1 [display full document](#)

2000. (INZZ) Recent LC material development and future technology trends for advanced LCDs.

☐ 2 [display full document](#)

1999. (INZZ) Enhanced dynamic response of the in-plane **switching liquid crystal** display mode through polymer stabilization.

☐ 3 [display full document](#)

1998. (INZZ) Optically compensated **in-plane-switching-mode** TFT-LCD panel.

☐ 4 [display full document](#)

1998. (INZZ) Comment on "Kink **switching** in ferroelectric free-standing films with high spontaneous polarization".

☐ 5 [display full document](#)

1996. (INZZ) Command layers with high azimuthal anisotropy: static and dynamic behavior.

Display Format	Display in	ERA <sup>SM</sup> Electronic Redistribution & Archiving
<input checked="" type="radio"/> Full <input type="radio"/> Free <input type="radio"/> Short <input type="radio"/> Medium <input type="radio"/> Custom <a href="#">Help with Formats</a>	<input checked="" type="radio"/> HTML <input type="radio"/> Tagged (for tables)	Copies you will redistribute: <input type="text"/> Employees who will access archived record(s): <input type="text"/> <a href="#">Help with ERA</a>

Publication year YYYY   Ascending

[order](#)